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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/809,661

03/15/2001

Eric R. Alling

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12/31/2003

EDWARDS & ANGELL, LLP

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EXAMINER

SINES, BRIAN J

ART UNIT

PAPER NUMBER

1743

DATE MAILED: 12/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

AS-7

# Office Action Summary

Application No.

09/809,661

Applicant(s)

ALLING ET AL.

Examiner

Brian J. Sines

Art Unit

1743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 5 – 7, 11, 12 and 14 – 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Eckles et al. (U.S. Pat. No. 4,326,940). Regarding claims 1, 5, 6 and 11, 14, 15, Eckles et al. teach a system comprising a method and apparatus for controlling the operation of equipment, wherein the operation of the equipment is adjustable via at least one parameter setting (e.g., bath temperature, shut-down mechanisms for external equipment & feed equipment). The system comprises: a control host or data acquisition and utilization device (14) in communication with the equipment (e.g., bath, 43), wherein the analyzer module is monitoring the operation of the equipment and generating an operations analysis; an access device (e.g., minicomputer or microprocessor controller 4), which is in communication with the control host, receiving the operations analysis and determining therefrom whether the equipment is operating efficiently; wherein the control host being in communication with the equipment for adjusting at least one parameter setting; wherein when the control host determines that the equipment is not operating efficiently, based upon predetermined operational parameters for the equipment, the control host adjusts at least one parameter setting until the equipment is operating efficiently (see col. 3, lines 40 – 68; col. 4, lines 1 – 65). Regarding claims 2 and 12, Eckles et al. teach that the process may be monitored continuously (see col. 7, lines 27 – 35). Regarding claims 7 and 16,

Eckles et al. teach that the control host maintains a log of previous settings of at least one parameter setting, wherein the control host adjusts at least one parameter setting based upon the log of previous settings (see col. 4, lines 9 – 28; col. 8, lines 6 – 21).

The newly amended portion of claim 1 reciting how the access device operates is considered a functional limitation. In a claim drawn to an apparatus statutory class of invention, a functional limitation may not be divorced from any specifically recited structure or composition. A functional limitation is an attempt to define an apparatus by what it does, rather than by what it is, *as evidenced by its specific structure* (emphasis added). A functional limitation is often used in association with an element to define a particular capability or purpose that is served by the recited element (see MPEP § 2173.05(g)). Regarding product and apparatus claims, when the structure recited in the reference is substantially identical to that of the claims, claimed properties or functions are presumed to be inherent (see MPEP § 2112.01). The Courts have held that where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a *prima facie* case of either anticipation or obviousness has been established. See *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). The Courts have held that apparatus claims must be structurally distinguishable from the prior art in terms of structure, not function. See *In re Danley*, 120 USPQ 528, 531 (CCPA 1959); and *Hewlett-Packard Co. V. Bausch and Lomb, Inc.*, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990) (see MPEP § 2114).

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 1743

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 3, 4, 8, 9, 13 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eckles et al. in view of Reid (U.S. Pat. No. 6,458,262 B1). Eckles et al. do not specifically teach that the control host is in a remote location with the analyzer module. Reid does teach an on-line monitoring and control system for an electroplating chemistry bath, wherein the control system is connected to a telecommunications or computer network (i.e., the internet) for remotely controlling and monitoring the equipment and process (see col. 12, lines 1 – 9). Therefore, it would have been obvious to one of ordinary skill in the art to incorporate a computer or a telecommunications network, as taught by Reid, with the control and monitoring system, as taught by Eckles et al., in order to facilitate complete and effective control and monitoring for the electroplating bath process and equipment.

Claims 10 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eckles et al. in view of Forand et al. (U.S. Pat. No. 5,476,578 A). Eckles do teach the control and monitoring of replenishment flow rates, such as for solvent delivery (see col. 3, lines 54 – 65). However, Eckles et al. do not specifically teach the monitoring and control of agitation. Forand

et al. do teach an electroplating process, which incorporates the agitation (see col. 26, lines 15 – 20). Therefore, it would have been obvious to one of ordinary skill in the art to incorporate a system for monitoring and controlling agitation, as taught by Forand et al., with the control and monitoring system, as taught by Eckles et al., in order to effectively monitor and control such an electroplating bath process, which incorporates agitation.

### ***Response to Arguments***

Applicant's arguments filed 10/6/2003 have been fully considered but they are not persuasive. Regarding claim 1, Eckles et al. do teach the incorporation of an access device (e.g., minicomputer or microprocessor controller 4) in communication with a control host (data acquisition and utilization device (14)) with the system (see col. 3, lines 40 - 68 & col. 4, lines 1 – 66; figure 2). Regarding claim 11, Eckles et al. do teach that the control host (14), and including the microprocessor (4), is capable of controlling or adjusting the operating parameters of the system during operation (see col. 4, lines 13 – 68). Regarding process or method claims, a prior art device anticipates a claimed process, if the device carries out the process during normal operation (see MPEP § 2112.02). The Courts have held that when a prior art device is the same as a device described in the specification for carrying out the claimed method, it can be assumed that the device will inherently perform the claimed process. See *In re King*, 801 F.2d 1324, 231 USPQ 136 (Fed. Cir. 1986).

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

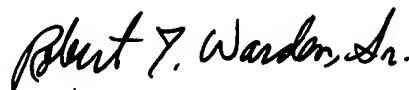
Art Unit: 1743

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian J. Sines, Ph.D. whose telephone number is (571) 272-1263. The examiner can normally be reached on Monday - Friday (11:30 AM - 8 PM EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill A. Warden can be reached on (571) 272-1267. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



ROBERT J. WARDEN, SR.  
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